20040603.ba v03_n656.bam.20040603

>From ???@??? Thu Jun 3 18:27:59 2004 +0000
Message-Id: <200406032327.i53NRS4o002511@sco.theporch.com>
Date: Thu, 3 Jun 2004 18:27:08 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3656

BOATANCHORS Digest 3656

Topics covered in this issue include:

Mime-Version: 1.0
Message-Id: <p0610053abce4012bfc91@[10.0.1.2]>
Date: Wed, 2 Jun 2004 17:13:32 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <r390a@bellsouth.net>
Subject: Re: Cheesy
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Woah!

What I described in my reply to this thread was just exactly the
thing that I might have built myself ages ago! And I still like jewelled
pilot lamps, thanks. :-)

Tom

>Unfair! Beauty is really in the eyes of the beholder. Not everyone has the
>wherewithal to turn out a home-brew item that looks as professional
>as some that
>come down the pike today, and make it to the cover of the Handbook or QST.
>
>If someone likes jeweled pilot lights-in any color-or can't do
>better than DYMO
>labels, why not?
>
>Was your first home-brew project ready for production? Mine
>certainly wasn't (about
>1946) and in fact, occupied an upended orange crate from the A & P
>store on the
>corner, with the
>BC-312 ($35) on top, the 6L6 breadboard rig in the middle (the crate divider)
>with a 2 volt 60 ma lamp for the crystal fuse and a 150 ma lamp for the plate
>current indicator. Would that I had a meter, but they were $2 and not in the
>budget of a teen earning very little. And the power supply, built
>bedbug style from old receiver components, was on the bottom shelf-a
>true death
>trap. I had the 80 running on the 6.3 volt winding and always thought it was
>sort of
>bright until an old hand noticed the yellow windings were unused.... but that
>beloved pile of 'stuff' was W2PIV (Syracuse) and I made hundreds of
>Qs with the
>one crystal
>I had on 3742 kc.

>
>So, next time you see some 'work of art' at auction or in a box under at table
>at a flea market, realize that some fellow aficionado spent hours, giving it
>his best shot.
>
>Herb Rosenthal W5AN

Message-ID: <41200463222544600@ix.netcom.com>
From: "Richard Humphrey" <n6nae@ix.netcom.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Shorted turns are OK, sometimes, right?
Date: Wed, 2 Jun 2004 15:5:44 -0700
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_84815C5ABAF209EF376268C8"

------=_NextPart_84815C5ABAF209EF376268C8
Content-type: text/plain; charset=US-ASCII

Dear Boatanchors:

A shorted turn in a power transformer causes power
dissipation, overheating, burnout and tears. Right? Ditto in an
audio transformer.

A shorted turn in a shielded loop antenna kills reception,
which is why the outside shield has a gap in it somewhere. Avoids the
shorted turn effect.

A shorted turn in an IF transformer causes tuning problems and
loss of 'gain'.

Yet every transmitter ever built uses the band switch to short
out the unused turns of the PI tank coil. Doesn't seem to have the
same problematic effects there.

This occurred to me the other day while thinking too much, and
I've never seen a discussion in any text on this point. I should probably
be able to figure this out, but I'm drawing a blank at the moment. Any
gurus with a thought on this to point me in the right direction? Time to
break out the GR impedance bridge and do some experimenting I
guess.

Richard

------=_NextPart_84815C5ABAF209EF376268C8
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

------=_NextPart_84815C5ABAF209EF376268C8--

Message-ID: <41200463222213350@ix.netcom.com>
From: "Richard Humphrey" <n6nae@ix.netcom.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 1650 KCs?
Date: Wed, 2 Jun 2004 15:21:33 -0700
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_84815C5ABAF209EF376268C8"

------=_NextPart_84815C5ABAF209EF376268C8
Content-type: text/plain; charset=US-ASCII

HI again:

My junk box contains a professionally done homebrew RF deck
which looks to be part of a low power AM radio station. Two octal tubes,
final was I think a 6146. Lots of loading coil plus a roller inductor, and
crystaled for 1650 KCs. I used to have two of these, both identical,
painted flat black.

In the 'olden' days, was there anything special going on at
1650? Must have been some 'official' use for there to have been at least
two of these built.

Richard

------=_NextPart_84815C5ABAF209EF376268C8
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

------=_NextPart_84815C5ABAF209EF376268C8--

Date: Wed, 02 Jun 2004 20:58:42 -0500
From: Charles <charlesmorris@direcway.com>
Subject: Even more screen modulation fun with BC-696/ARC-5
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <6gvsb09q291f9pkvndvu4urlvi334t35rv@4ax.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7BIT

I've been doing some last-minute experimenting with loading and
different screen voltages from an external ps. The best looking
waveform, although still not perfect, on the scope is full loading
and only 90v screen (now fed from the 150v regulatory through a 5k
resistor, bypassed with a 22uf cap to ground). At 90v screen, 600v
plate, max cathode current measured at the (previous owner added)
front panel key jack is 65 ma (39w plate+screen input) with
loading at maximum, 25w indicated output. At lower power outputs
(less loading), the modulation is more distorted looking and I
have found that the screen voltage would have to be dropped even
further. Unfortunately I don't have an RF spectrum analyzer so I
have no idea how "clean" the output is (splatter or harmonics).

For one thing, I need a better modulation transformer. Although
the speech amp is clean, the junkbox 15va isolation trans I'm

using doesn't have enough low frequency response (may be too low Z
for the 6AQ5) and the waveform on both sides of the transformer
starts looking distorted below 350 Hz or so. It works fine from
700 Hz on up, though. It probably will sound strange on the air...
Any recommendations for a proper and physically small modulation
transformer?

Meanwhile, I tried the unun idea unsuccessfully, but I'm not sure
why. I found a T-200-6 toroid, (1-50 MHz mix), 100 uH per 100
turns according to Surplus Sales, and put 9 turns on the primary
(0.81 uh) which I calculate to have a reactance of 19.3 ohms at
3.8 mc. Then 15 turns on the secondary to give (15/9)^2 = 53.7
ohms to the power meter/dummy load resistor. When I keyed it there
was only a barely detectable wiggle on the meter (and scope) of a
few tenths of a watt. No change at any setting the roller
inductor, no obvious shorts or opens... wondering what I did
wrong?

-Charles
WB3JOK

Message-ID: <002201c44906$96451e00$6401a8c0@Mongo>
From: "Paul Monroe" <pmonroe@charter.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 1650 KCs?
Date: Wed, 2 Jun 2004 20:03:29 -0500
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I believe that 1650 was used by some police departments in the 30's and
40's. Saw a big WRL rig set up for 1650.
Pauk, W9MEH
----- Original Message -----
From: "Richard Humphrey" <n6nae@ix.netcom.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Wednesday, June 02, 2004 17:21 PM
Subject: 1650 KCs?

>
> HI again:
>
>
>
> My junk box contains a professionally done homebrew RF deck

> which looks to be part of a low power AM radio station. Two octal tubes,
> final was I think a 6146. Lots of loading coil plus a roller inductor,
and
> crystaled for 1650 KCs. I used to have two of these, both identical,
> painted flat black.
>
>
>
> In the 'olden' days, was there anything special going on at
> 1650? Must have been some 'official' use for there to have been at least
> two of these built.
>
> Richard
>

Date: Wed, 2 Jun 2004 21:17:12 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Even more screen modulation fun with BC-696/ARC-5
Message-ID: <Pine.OSF.4.58.0406022114160.4557@mail.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 2 Jun 2004, Charles wrote:

> Meanwhile, I tried the unun idea unsuccessfully, but I'm not sure
> why.

Instead of fooling aorund with a unun, simply wind an autotransformer.
Say a single winding of 20 turns or so with taps. This works fine between
unbalanced source/load. Can either use it step-up or step-down as needed.
I do that in antenna tuners all the time.

                          Bob Roehrig
                  Aurora University   Telecom dept.
                  broehrig@aurora.edu   73 de K9EUI
                  630-844-4898   fax 630-844-4222
                  "Nostalgia is a thing of the past"

Message-ID: <002301c44917$09b922e0$5ee47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Shorted turns are OK, sometimes, right?
Date: Wed, 2 Jun 2004 20:01:10 -0700
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Oh, Rich;

> .....Yet every transmitter ever built uses the band switch to short
> out the unused turns of the PI tank coil. Doesn't seem to have the
> same problematic effects there. ...

You've stuck your sharp stick in the eye of one of the all time chucklers. That one had me stumped for some time. Here's how I understand that apparent conundrum (I'm open to corrections):

Remember the theory books explanation of *mutual coupling* between two tank circuits? Well, unfortunately some didn't bother to explain the effect of loading, or tank impedance, on mutual coupling. If, say, the secondary tank of an IF transformer is loaded down by placing a resistor across the tank two things happen. The output of the secondary decreases AND, in the case of an overcoupled transformer, the *bandwidth narrows*. This occurs because the coupling coefficient is altered, coupling is *decreased.* There is an apparent impedance mismatch between primary and secondary and you know the maximum power transfer theorem says that impedance must be equal for maximum power to be transferred. Therefore, carrying the idea to its logical conclusion a *dead short* across the secondary would mean that no power is transferred. And that's exactly what would happen if it weren't for the winding resistance of the secondary tank inductor and dielectric loss (of which there is very little) in the secondary tank capacitor. What actually happens is very little power is transferred and therefore lost in the secondary.

Now carry that analysis to the pi network with the shorted turns. The tapped coil is actually an auto-transformer. There is a coupling coefficient between one part of the coil, the tank as primary, and the other part, the shorted turns as secondary. The result is the same, only a small amount of power is lost in the secondary.

No, the mechanism of coupling (coefficient of) is not through some kind of lossless resistor, it is the result of how much energy reaches the secondary, i.e., the energy available decreases with distance.

Now what happens in the case of shorted turns in a power transformer where things go up in smoke? It's the big difference in the coefficient of coupling that causes all the trouble. The iron core, being much more permeable than air, and being shared by both primary and secondary windings, provides more available energy to the "secondary," be it shorted turns in the primary (the autoformer case) or in a secondary winding. In comes the *reflected impedance* factor. Because of the tight coupling between windings in an iron core transformer energy is so efficiently coupled from

primary to secondary that there is negligible apparent loss of energy. As more power is consumed from the secondary more power is delivered by the primary, i.e., primary current increases. If the fuse doesn't blow the energy is let out in the form of smoke!

Going back to the IF transformer example, does the tube driving the primary of an overloaded IF transformer secondary see an increased load? Yes, a little bit. In the case of the RF power amplifier, does the tube have to work harder because of the shorted turns in the pi network? Yes, a little bit, but far less than the amount of work it does to send power to the antenna which is impedance matched by the transformer action of the pi network.

Does this all sound counter intuitive? Not if you keep in mind how coupling coefficient and impedance matching are managed to produce the preferred results of energy transfer in transformers, and Q (selectivity) in the case of resonant tank transformers.

The reader is encouraged to read up on IF and RF transformer coupling to see why an overcoupled resonant transformer produces a double humped response. Get that down and you are on top of this subject.

Arden Allen
KB6NAX

Message-ID: <40BE9A8C.CA65236D@sympatico.ca>
Date: Wed, 02 Jun 2004 23:27:09 -0400
From: Jerry Proc <jerry.proc@sympatico.ca>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: D-Day and Decca Navigator
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello Everyone,

Sunday June 6th marks the 60th anniversary of the D-Day invasion. As my personal tribute to D-Day veterans, I have posted a short story about the important role that the Decca Navigator system played on one of the most important days in history.

http://webhome.idirect.com/~jproc/hyperbolic/dday

--

Regards,

Jerry Proc VE3FAB
Toronto, Ontario
e-mail: jerry.proc@sympatico.ca
http://webhome.idirect.com/~jproc/ve3fab

Message-Id: <6.0.1.1.2.20040603092019.031dd630@ntpop.usnews.com>
Date: Thu, 03 Jun 2004 09:21:54 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: Avery Comarow <acomarow@usnews.com>
Subject: FS: Radio Handbook by Bill Orr, 20th ed.
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hard cover, excellent condition. 1975.

$25 plus $3 shipping media rate.

Avery W3AVE
Potomac, Md.

Date: Thu, 3 Jun 2004 09:31:54 -0400 (EDT)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200406031331.i53DVskH018903@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Even more screen modulation fun with BC-696/ARC-5

broehrig wrote to wind the step-up unun as a autoxfrmr.

I agree

But on T200 toroid, DO interleave two wdg.s all around core. AND

   1st wdg. start is gnd.

   1st wdg. finish connects to 2nd wdg. start.

      and that's where lead to BC696 out goes (no L on it's inductor)

   2nd wdg. finish to 50 ohms R

These are transmission-line xfrmrs & just don't obey 60hz rules.

In particular, you still have the Xl of the link & the transmission-line xfrmr doesn't like it so

   IT WON'T WORK unless somehow the roller compensates & IT SHOULDN'T

since it's plowing in more Xl.

Where are we now?

Skip the UnUn & just put a BC variable in series w. R-load & BC-696 set for "0 roller". That'l tune out link Xl & never heat* while keying. And from the EE's eye, it's the exact right fix.

The variable link will act like a variable-tap transformer & get 50 ohms "on the nose."

Marty

*& cause chirp? C'MON ARC5 Stinson

Message-ID: <40BF2FB9.BAF62045@comcast.net>
Date: Thu, 03 Jun 2004 08:03:44 -0600
From: "Herbert M. Rosenthal" <herbrose@comcast.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: D Day and Pathfinders
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Last night on TV I watched a program about D Day. Part of it had to do with a group of men called Parhfinders; they were members of the 101st Airborne, an elite group of specially trained paratroopers whose mission was to jump into France with very secret transponders and set them up just a short time before the invasion began. These locator beacons were then to be used by the pilots in C47s (Gooneys) who had special equipment to DF and to display the location of these beacons at the essential drop zones. One shot of the C47 showed what looked to be a vertically polarized 3 element beam, mounted just outside the pilot's window. I couldn't get a good look at the locators on the ground because the photos were shot in almost dark, but the antenna looked like some sort of vertical coaxial antenna. The locators supposedly had explosive charges within to destroy them so the Germans could not
capture any.

Many of the locators were deployed in time for the drops; many men lost their lives; some were shot at before they landed.

Wonder whether any of the BA gang can tell us about this equipment-it certainly played an important role in the invasion.

Herb Rosenthal W5AN

Date: Thu, 03 Jun 2004 09:24:40 -0500
From: Charles <charlesmorris@direcway.com>
Subject: Re: Even more screen modulation fun with BC-696/ARC-5
To: Old Tube Radios <boatanchors@theporch.com>
Cc: stuck in 50s <polepeeg@ba-watch.org>
Message-id: <itcub016fn5eshsdobckq2jbdpnupt7s8h@4ax.com>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7BIT

Thanks for info.

On Thu, 03 Jun 2004 09:31:54 -0400 (EDT), you wrote:

>broehrig wrote to wind the step-up unun as a autoxfrmr.
>But on T200 toroid, DO interleave two wdg.s all around core. AND
>These are transmission-line xfrmrs & just don't obey 60hz rules.

Something I obviously overlooked. My former EE career was in
digital/microprocessor, not RF :)

>Skip the UnUn & just put a BC variable in series w. R-load & BC-696 set
>for "0 roller". That'l tune out link Xl & never heat* while keying.

That had also been suggested by others; I'll give it a shot when I
get back from vacation.

>*& cause chirp? C'MON ARC5 Stinson

I saw that, I think he was thinking I might be running CW at some
point... (NO :)

-Charles

Message-ID: <40BF52B5.9050900@ix.netcom.com>
Date: Thu, 03 Jun 2004 11:32:53 -0500
From: David Stinson <arc5@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Even more screen modulation fun with BC-696/ARC-5
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

stuck in 50s wrote:
>

> IT WON'T WORK unless somehow the roller compensates & IT SHOULDN'T
> since it's plowing in more Xl.

I beg to differ. I've used them and they work just fine,
exactly as I described. They do eat a little power
to get the job done.

Will a variable cap in line with no roller coil cut in
do the job? Certainly, and I bow to your "EE" on that.
My biggest concern is the way hams have commonly
tuned them- max link, no roller. I've observed the
output on a spec analyizer and that is an
invitation to a pink ticket.

> *& cause chirp? C'MON ARC5 Stinson

Having worked extensively and, I dare say, at far more
depth with these transmitters than anyone I know about,
I *think* I know what I'm talking about.
The ARC-5 is an MOPA. Anything that changes the loading
during keying is going to cause chirp. If you don't believe me,
hook one up to a dipole on a windy day and hold the key down.
You'll enjoy listening to the note sway along with the antenna.
Heavy oxidation on the roller coil heats when you key.
That introduces thermal "R" and changes the loading.
"The proof is in the pudding," as the way I got rid of
the very last vestige of chirp in my 1st-run BC-459
was by polishing the roller coil assembly and De-Oxit-ing
the link connection contacts.
I did assume he was going to use the rig on CW.
If not, this may not be a factor. But cleaning the
contacts should be standard procedure in any event.

73 Dave S.

Message-ID: <000701c4498d$afca65b0$94f02144@Denroom>
From: "B. Smith" <smithab11@comcast.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 50 K Pot with switch needed.
Date: Thu, 3 Jun 2004 13:10:33 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Needed to restore a 3 tube Meissner Receiver---- AKA "Kid Killer".
One each Pot, 50K with Rear Mounted On/Off Switch. Other values can be used.

Pot Dia is one inch with standard quarter inch shaft.

Breck K4CHE

Dover, Delaware
Annt nutten in Dover except
Chickens, a NASCAR track,
and hams that can't solder.

Message-ID: <001e01c4499b$6c407a60$32e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 50 K Pot with switch needed.
Date: Thu, 3 Jun 2004 11:48:50 -0700
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

You can get exactly what you want at very reasonable prices at:

 <http://www.radiodaze.com/potentiometers.htm>

No axe to grind, just a satisfied customer.

Arden Allen
KB6NAX

----- Original Message -----
From: "B. Smith" <smithab11@comcast.net>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Thursday, June 03, 2004 10:10 AM
Subject: 50 K Pot with switch needed.

> Needed to restore a 3 tube Meissner Receiver---- AKA "Kid Killer".
> One each Pot, 50K with Rear Mounted On/Off Switch. Other values can be
used.
> Pot Dia is one inch with standard quarter inch shaft.
>
> Breck K4CHE
>
> Dover, Delaware
> Annt nutten in Dover except
> Chickens, a NASCAR track,
> and hams that can't solder.
>

Date: Thu, 3 Jun 2004 15:32:53 -0400 (EDT)
From: John Poulton <jp@cs.unc.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Leaky Mica Cap in R-388
Message-ID: <Pine.LNX.4.58.0406031529020.16997@swan.cs.unc.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Got to do something unusual and fun last night--work on an
actual radio! My trusty R-388 had developed a serious problem,
'pinched' distorted audio, and poor sensitivity, getting worse
as the receiver warmed up.

Checked tubes, and found a 6BE6 whose Gm gradually dropped after
warming up, replaced it--no change!

So, reasoning that the problem was AGC related, I started poking
around in the AGC detector/amp area. It soon became apparent that
V111A, the AGC amp, was turned on hard with both grid and cathode
at about -47 volts, this condition pulling down the AGC line to
-25 volts or so after the receiver was good and warmed up, thus
turning off the whole RF/IF chain.

Finally found the problem: C204, a 100pF CM-15 silvered mica, the
coupling capacitor between the detector and AGC rectifier, was
leaky as the dickens. Replaced it, and the receiver magically came
back to life.

Guess I've always considered the CM-15 caps to be high-quality
components, but among the Seven Deadly Caps in the 75A-4 are the
470pF CM-15's that are used for inter-stage coupling. They *do*
go bad with depressing frequency. Any opinions on the relative
reliability of these vs., say, the brown epoxy-dipped silvered
micas..?

Just for the heck of it, I put the dead cap on the curve tracer
here at work today, with interesting results. The cap looks
like a cap (Lissajou oval) until about 50V of bias (which just
happens to be the normal operating voltage across this cap in
the R-388). Above that voltage, the cap abruptly starts behaving
as though it had back-to-back diodes across it. And, the I/V
curve jumps around in a most amusing way, indicating some sort
of time-dependent behavior.   The currents are pretty big, maybe
100 microamps at 100 V.

The guy in the next cube is a semiconductor process engineer. He

sez: tin dendrites are forming metal/semiconductor/metal junctions
(tin oxide is a crappy semiconductor). The jumping around, we
believe, is caused by electromigration. That would certainly confirm
what we see on the 'tracer.

Anyhow... another adventure with old caps that I thought might be
worth sharing.

73 de John K4OZY

Date: Thu, 3 Jun 2004 17:38:52 -0400 (EDT)
From: stuck in 50s <polepeeg@ba-watch.org>
Message-Id: <200406032138.i53Lcqrr022106@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: Leaky Mica Cap in R-388

worth sharing OK

That AVC amp. take-off cap is the only 'A4 cap I've ever found goofed... & the
count's 4, 5, or 6 - can't remember.

& other deadly ones? No such bad luck here

And on AG migration. Replaced 2 Moto 79XM21 455 IFs the other day. Same
bug. See rec.antiques.radio+phono fer more.

 'rm

Message-ID: <21768642.1086304077819.JavaMail.root@louie.psp.pas.earthlink.net>
Date: Thu, 3 Jun 2004 16:07:57 -0700 (GMT-07:00)
From: spr@earthlink.net
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Wanted: 5 kHz AM filter for Heath SB-301/310
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Folks,

Just got a Heath SB-310 and the 5 kHz filter is missing. It has the 2.1kHz and 400
Hz filters. Are there any 5K units available? Trade for 400 Hz filter is a
possibility, although I'd rather keep it whole if I can.

Peace,

Scott Robinson

Message-ID: <001301c449c2$3a0ab5c0$afe47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Leaky Mica Cap in R-388
Date: Thu, 3 Jun 2004 16:26:00 -0700
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> .....Any opinions on the relative
reliability of these vs., say, the brown epoxy-dipped silvered
micas..? ....

Add moisture and you get what your semiconductor colleague described, obviously. The epoxy dipped caps are less reliable than the older wax impregnated phenolic molded caps because the meniscus surrounding the leads is fragile and easily damaged during installation thus allowing moisture ingress. Over time, especially in a humid environment, the capacitor's insulation resistance will deteriorate. I have opened up a few that tested poorly and they were a mess of corrosion. Mica caps in high impedance circuits are as suspect as paper caps.

Arden Allen
KB6NAX

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